AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior version and listings of claims in the application:

Claims 1-145. (cancelled).

146. (currently amended) A method for providing access to a network system ~~which comprises a network~~, the method comprising:

a first access point coupled to the network receiving system identification information from a portable computing device in a wireless manner, wherein the system identification information ~~indicates~~ includes ~~a~~ an identifier for a first virtual local area network (VLAN) ~~VLAN of~~ from among a plurality of possible VLANs [[;]] and wherein each of at least two of the plurality of possible VLANs is dedicated ~~corresponds~~ to a different respective network service provider from among a plurality of network service providers;

the first access point determining the first VLAN of the plurality of possible VLANs for the portable computing device after receiving the system identification information;

the first access point receiving data from the portable computing device; and

the first access point providing the received data to a first network service provider based on one or more attributes of the determined first VLAN ~~determined in said determining~~ .

147. (currently amended) The method of claim 146, wherein the providing the received data to a first network service provider based on the determined first VLAN comprises

~~wherein the first VLAN corresponds to a first network destination~~

determining, as a function of the first VLAN identifier, a first network destination; and

~~wherein said providing comprises providing the received data to the first network service destination unsding the first VLAN.~~

<u>forwarding the received data to the determined first network destination</u>.

148. (currently amended) The method of claim 146,

wherein each of ~~the~~ <u>a</u> plurality of possible VLANs <u>is associated with</u> ~~corresponds to~~ a respective network destination of a plurality of possible network destinations;

wherein the first VLAN <u>is associated with</u> ~~corresponds to~~ a first network destination;

wherein said providing comprises ~~providing~~ <u>forwarding</u> the received data to the first network destination ~~using the first VLAN~~.

149. (previously presented) The method of claim 148,

wherein the use of different VLANs for different network destinations operates to separate data traffic on the network for each of the network destinations.

150. (currently amended) The method of claim 148,

wherein at least a subset of the network destinations ~~comprise~~ <u>are dedicated to</u> wireless service providers.

151. (currently amended) The method of claim 148,

the first access point coupled to the network receiving second <u>system</u> identification information from a second portable computing device in a wireless manner, wherein the second <u>system</u> identification information ~~indicates~~ <u>includes an identifier for</u> a second VLAN of the plurality of possible VLANs;

the first access point determining the second VLAN of the plurality of possible VLANs for the second portable computing device ~~after receiving the~~ <u>from the received</u> second <u>system</u> identification information;

the first access point receiving second data from the second portable computing device; and

~~providing the received second data to a second network service provider based on the second VLAN determined in said determining.~~

the first access point providing the received second data to a second network service provider based on one or more attributes of the determined second VLAN.

152. (currently amended) The method of claim 146, further comprising:

the first access point receiving second system identification information from a second portable computing device in a wireless manner, wherein the second system identification information includes ~~indicates a~~ an identifier for a second VLAN of the plurality of possible VLANs;

the first access point determining the second VLAN of the plurality of possible VLANs ~~after receiving the~~ from the received second system identification information;

the first access point receiving second data from the second portable computing device; and

~~providing the second received data to a second network service provider based on the second VLAN determined in said determining.~~

the first access point providing the second received data to a second network destination based on one or more attributes of the determined second VLAN.

153. (currently amended) The method of claim 146,

wherein the network system includes a memory medium which stores a data structure comprising a list of VLAN identifier ~~identification information~~ entries and, for each entry, ~~a corresponding list of~~ one ore more VLAN attributes, for each of the VLANs in the plurality of possible VLANs; and

wherein said determining the first VLAN of the plurality of possible VLANs includes accessing the memory medium and using the received VLAN identification information to determine one or more attributes of the first VLAN.

154. (currently amended) The method of claim 153,

wherein said determining one or more attributes of the first VLAN of the plurality of possible VLANs comprises indexing into the data structure using the VLAN identification information to ~~determine~~ access one or more attributes of the first VLAN

~~of the plurality of possible VLANs stored in the data structure corresponding to the~~

~~identification information.~~

155. (currently amended) The method of claim 153,

wherein the memory medium is ~~comprised~~ contained in the first access point.

156. (currently amended) The method of claim 153,

wherein the one or more VLAN attributes in the data structure further ~~comprises~~ includes one or more associated methods for providing data to the network; and

wherein said determining the first VLAN of the plurality of possible VLANs includes accessing the memory medium and using the received system identification information to determine the first VLAN and ~~an associated method~~ one of the one or more associated methods for providing data to the network.

157. (currently amended) The method of claim 146,

wherein the system identification information ~~comprises~~ includes an Institute of Electronic Engineers (IEEE) standardized 802.11 [[a]] System Identification (SID).

158. (currently amended) The method of claim 157,

wherein the System Identification ~~comprises~~ includes one or more of a wireless Ethernet Service Set ~~ID~~ Identification (SSID), an Extended Service Set ~~ID~~ Identification (ESSID), and a Basic Service Set ~~ID~~ Identification (BSSID).

159. (currently amended) The method of claim 158,

wherein the BSSID ~~comprises~~ includes an Institute of Electronic Engineers (IEEE) standardized ~~a~~ Media Access Control Identification (MAC [[)]] ID).

160. (currently amended) The method of claim 146, ~~further comprising~~ wherein said providing the received data to a first network service provider based on one or more attributes of the determined first VLAN further comprises

determining an access level for the portable computing device after receiving the system identification information; and

wherein said selectively providing the received data to the a first network service provider based on the first VLAN determined in said determining is based on the determined access level.

161. (previously presented) The method of claim 146, further comprising:

the first access point concurrently using a plurality of radio frequency (RF) channels for communicating with one or more portable computing devices.

162. (previously presented) The method of claim 161,

wherein a first RF channel of the plurality of RF channels and a second RF channel of the plurality of RF channels are non-overlapping RF channels.

163. (currently amended) The method of claim 146,

wherein the network is operable to support the Institute of Electronic Engineers (IEEE) IEEE 802.1p transmission protocol.

164. (currently amended) The method of claim 146,

wherein the network is operable to enforce a predefined quality of service Quality of Service (QoS) metric as defined in the Institute of Electronic Engineers (IEEE) IEEE 802.1p transmission protocol to the first VLAN.

165. (previously presented) The method of claim 146, further comprising:

the first access point broadcasting a plurality of possible System Identifications (SIDs), wherein each of the plurality of possible SIDs is associated with at least one VLAN of the plurality of possible VLANs.

166. (previously presented) The method of claim 165,

wherein said broadcasting the plurality of possible SIDs includes a beacon

format.

167. (currently amended) The method of claim 146, wherein the first access point is

arranged at a known geographic location, the method further comprising:

providing network access to the portable computing device using the first

determined VLAN determined in said determining; and

determining a geographic location of the portable computing device;

wherein said providing network access comprises selectively providing network

access to the portable computing device based on the determined geographic location

of the portable computing device.

168. (currently amended) The method of claim 146, wherein the first access point is

arranged at a known geographic location, the method further comprising:

providing network access to the portable computing device using the first

determined VLAN determined in said determining;

wherein said providing network access comprises selectively providing network

access to the portable computing device based on the known geographic location of the

first access point.

169. (currently amended) The method of claim 146, wherein the first access point is

arranged at a known geographic location, the method further comprising:

providing network access to the portable computing device using the first

determined VLAN determined in said determining; and

determining an access level for the portable computing device after receiving

from the received system identification information;

wherein said providing network access comprises selectively providing network

access to the portable computing device based on the known geographic location of the

first access point and the determined access level.

170. (previously presented) The method of claim 146, further comprising:

assigning a wireless communication channel for communication between the first access point and the portable computing device.

171. (previously presented) The method of claim 170,

wherein the first access point assigns the wireless communication channel for communication between the first access point and the portable computing device.

172. (currently amended) The method of claim 170, wherein said assigning comprises assigning the wireless communication channel based on the <u>system</u> identification information received from the portable computing device.

173. (currently amended) A method for providing access to a network system ~~which comprises a network~~, the method comprising:

a first access point coupled to the network receiving identification information from a portable computing device in a wireless manner, wherein the identification information ~~indicates~~ <u>includes an identifier for</u> a first VLAN of a plurality of possible VLANs;

wherein each of at least two of the plurality of possible VLANs corresponds to a different respective network service provider from among a plurality of network service providers;

the first access point determining the first VLAN <u>identifier</u> of the plurality of possible VLANs for the portable computing device after receiving the <u>system</u> identification information, wherein the first VLAN <u>is associated with</u> ~~corresponds to~~ a first network service provider;

the first access point receiving data from the portable computing device; and

providing the received data to the first network service provider using the first <u>determined</u> VLAN ~~determined in said determining~~.

174. (currently amended) ~~A system~~ An apparatus to implement an access point, the apparatus comprising

a wireless access point coupled to a network, wherein the ~~first~~ wireless access point is operable to wirelessly communicate with a portable computing device, wherein the first wireless access point is operable ~~configured~~ to receive system identification information from the portable computing device ~~indicating~~ including an identifier of a VLAN ~~of~~ from among a plurality of possible VLANs;

wherein each of at least two of the plurality of possible VLANs corresponds to a different respective network service provider from among a plurality of network service providers;

wherein the first wireless access point is operable to determine the identifier of the VLAN indicated in the system identification information, wherein the determined VLAN corresponds to a first network service provider; and

wherein the first wireless access point is operable to select the first network service provider from among the plurality of possible network service providers based on the determined ~~indicated~~ VLAN to provide network access to the portable computing device.

175. (currently amended) The ~~AP~~ apparatus of claim 174,

wherein each of the plurality of possible VLANs ~~corresponds to~~ is associated with a respective network destination of a plurality of possible network destinations;

wherein the first VLAN ~~corresponds to~~ is associated with a first network destination; and

wherein the ~~first wireless access point~~ apparatus is operable to:

receive data from the portable computing device ~~and provide the received data to the first network destination.~~

determine, as a function of the first VLAN identifier, the first network destination; and

~~provide~~ forward the received data to the determined first network destination using the first VLAN.

176. (currently amended) The ~~AP~~ apparatus of claim 175,

wherein the use of different VLANs for different network destinations operates to separate data traffic on the network for each of the network destinations.

177. (currently amended) A system[[,]] comprising:

a wireless access point operable to communicate with a portable computing device in a wireless fashion,

wherein the wireless access point is configured to receive system identification information from the portable computing device indicating a VLAN ~~of~~ from among a plurality of possible VLANs;

wherein the wireless access point is operable to determine the VLAN indicated by the system identification information;

wherein the wireless access point is operable to provide network access to the portable computing device through the determined VLAN;

wherein at least two of the plurality of possible VLANs is associated with a different respective network service provider from among a plurality of network service providers; and

wherein the access point is operable to maintain an association between each of the at least two of the plurality of possible VLANs and the respective network provider from among a plurality of network service providers.

178. (cancelled).

179. (currently amended) The ~~network~~ system of claim 177,

wherein network access is provided to the portable computing device through the first access point~~, the determined VLAN, and~~ to the respective network provider.

180. (currently amended) The ~~network~~ system of claim 177,

wherein the ~~system~~ identification information ~~comprises~~ includes an Institute of Electronic Engineers (IEEE) standardized 802.11 System ~~ID~~ Identification (SID) of a plurality of possible SIDs; and

wherein the first access point is operable to recognize the SID of ~~the~~ a plurality of possible SIDs, wherein each of the recognized plurality of possible SIDs is associated with a respective one of the plurality of possible VLANs.

181. (currently amended) The ~~network~~ system of claim 180,

wherein at least a subset of the plurality of possible SIDs ~~comprises~~ includes one or more of a Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID).

182. (currently amended) The ~~network~~ system of claim 180, further

~~wherein the first access point is~~ operable to maintain an association ~~associations~~ between each one of a ~~the~~ plurality of possible SIDs and a respective one of the plurality of possible VLANs.

183. (currently amended) The ~~network~~ system of claim 180,

wherein each member of ~~at least~~ a non-empty subset of the plurality of possible VLANs is associated with a respective service provider; and

wherein the first access point is further operable to maintain an association[[s]] between each member of ~~at least~~ [[a]] the non-empty subset of the plurality of possible SIDs and a plurality of active subscribers of ~~each~~ the associated service provider.

184. (currently amended) The ~~network~~ system of claim 180, further ~~wherein the first access point is~~ operable to broadcast ~~at least~~ a non-empty subset of the plurality of possible SIDs, wherein each of the plurality of possible SIDs is associated with a respective one of the plurality of VLANs.

185. (currently amended) The ~~network~~ system of claim 184, further

~~wherein the first access point is~~ operable to use a beacon format to broadcast the ~~at least~~ <u>non-empty</u> subset of the plurality of possible SIDs.

186. (currently amended) The ~~network~~ system of claim 184,

wherein the ~~at least~~ <u>non-empty</u> subset of the plurality of possible SIDs ~~comprises~~ <u>includes</u> one or more of a Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID).

187. (currently amended) The ~~network~~ system of claim 177, <u>further operative to</u>

~~wherein at least one of said plurality of access points comprises computer software which implements~~ <u>provide</u> a plurality of virtual access points, wherein each virtual access point of the plurality of virtual access points corresponds to one of the plurality of possible VLANs, and wherein each virtual access point of the plurality of virtual access points provides network access services to one or more portable computing devices through the corresponding VLAN.

188. (currently amended) The ~~network~~ system of claim 187,

wherein each virtual access point of the plurality of virtual access points provides access point functionality ~~implemented in software~~, wherein each virtual access point of the plurality of virtual access points <u>is operable to simulate</u> ~~appears as~~ a <u>distinct</u> physical access point to the portable computing device.

189. (currently amended) The ~~network~~ system of claim 187,

wherein each virtual access point of the plurality of virtual access points executes a wireless <u>transmission</u> protocol stack.

190. (currently amended) The ~~network~~ system of claim 189,

wherein the wireless <u>transmission</u> protocol stack comprises <u>an Institute of Electronic Engineers (IEEE) standardized</u> ~~IEEE~~ 802.11 protocol stack.

191. (currently amended) The ~~network~~ system of claim 187,

wherein each virtual access point of the plurality of virtual access points includes an Institute of Electronic Engineers (IEEE) standardized 802.11 Extended Service Set ID (ESSID), and wherein each ESSID corresponds to one of the plurality of possible VLANs.

192. (currently amended) The ~~network~~ system of claim 177, further comprising:

a memory medium coupled to the network which stores a data structure comprising a list of system identification ~~information~~ entries and ~~a corresponding list of the pluarality of possible VLANs~~, for each entry, a respective VLAN associated with the system identification; and

wherein, in said ~~determining the VLAN~~ maintaining an association between a VLAN and a system identification, ~~each of the plurality of access points~~ the system is further operable to access the memory medium and use the received identification information ~~to determine~~ to index the memory medium to determine the VLAN.

193. (currently amended) The ~~network~~ system of claim 192,

wherein the memory medium is ~~comprised~~ contained in ~~one or more of~~ the ~~plurality of~~ access point[[s]].

194. (currently amended) The ~~network~~ system of claim 177,

wherein the ~~pularility of~~ access point[[s]] ~~are~~ is maintained by a first network service provider; and

wherein the VLAN identication information is associated with ~~indicates~~ a second network service provider.

195. (currently amended) The ~~network~~ system of claim 177,

wherein the ~~plurality of access points are~~ the access point is arranged at a known location[[s]] in a geographic region, wherein ~~each~~ the access point is operable to provide geographic location information indicating a known geographic location of the portable computing device; and

wherein network access is selectively provided to the portable computing device based on the known geographic location of the portable computing device.

196. (currently amended) The ~~network~~ system of claim 177,

wherein the first access point is operable to assign a wireless communication channel for communication between the first access point and the portable computing device.

197. (currently amended) The ~~network~~ system of claim 177, wherein ~~one or more of~~ the ~~plurality~~ access ~~points~~ is operable to assign a wireless communication channel based on one or more of:

the <u>system</u> identification information received from the portable computing device, and

a determined access level for the portable computing device, wherein said access level is determined from the system identification <u>information</u> ~~by one of said one or more of the access points after receiving the identification information~~.

198. (currently amended) The ~~network~~ system of claim 177, wherein one or more of the plurality access points are operable to assign [[a]] <u>an Institute of Electronic Engineers (IEEE)</u> ~~quality of service~~ <u>standardized Quality of Service (QoS)</u> based on one or more of:

the <u>system</u> identification information received from the portable computing device, and

a determined access level for the portable computing device, wherein said access level is determined ~~by one of said one or more of the access points after receiving the identification information~~ <u>from the system identification information</u>.

199. (currently amended) The ~~network~~ system of claim 177,

wherein the network is operable to support <u>the Institute of Electronic Engineers (IEEE) standardized</u> <u>transmission protocol commonly known as</u> IEEE 802.1p.

200. (currently amended) The ~~network~~ system of claim 177,

wherein the first access point is operable to concurrently use a plurality of radio frequency (RF) channels for communicating with one or more portable computing devices.

201. (currently amended) The ~~network~~ system of claim 200, wherein a first RF channel of the plurality of RF channels and a second RF channel of the plurality of RF channels are non-overlapping RF channels.

202. (currently amended) A method for operating a network system, the method comprising:

receiving, in a first access point coupled to a network, ~~receiving~~ system identification information transmitted from a portable computing device in a wireless manner;

determining, in the first access point, ~~determining~~ a VLAN tag corresponding to the system identification information;

~~the first access point receiving data from the portable computing device in a wireless manner;~~

providing the VLAN tag and the data received from the portable computing device to the network;

~~wherein at least two of a plurality of possible VLANs is associated with a different repsective network provider from among a plurality of network providers;~~

~~wherein the network is operable to~~ maintaining an association between ~~each of the at least two of the plurality of possible VLANs~~ the VLAN tag and ~~the~~ a respective network provider from among the plurality of network providers; and

routing ~~wherein the network routes~~ the data received from the portable computing device ~~through~~ to the respective network provider associated with the determined VLAN tag from among the plurality of network providers ~~associated with the determined VLAN tag.~~

203. (previously presented) The method of claim 202,

wherein the first access point and the portable computing device communicate using wireless Ethernet.

204. (currently amended) The method of claim 202,

wherein the identification information comprises a an Institute of Electronic Engineers (IEEE) standardized 802.11 System Identification.

205. (currently amended) The method of claim 204,

wherein the System Identification comprises one or more of a wireless Ethernet Service Set Identification ID (SSID), an Extended Service Set Identification ID (ESSID), and a Basic Service Set Identification ID (BSSID).

206. (currently amended) The method of claim 202,

wherein said determining associating comprises accessing a memory medium coupled to the network to determine one or more attributes to associate with the determined VLAN tag corresponding to the identification information.

207. (currently amended) The method of claim 206,

wherein the memory medium comprises a data structure which includes a list of VLAN identification information entries and, for each entry, a corresponding list of VLAN attributes tags.

208. (currently amended) The method of claim 207,

wherein said determining comprises using the identification information to index into the data structure using the identification information to determine the VLAN tag attributes.

209. (currently amended) The method of claim 206,

wherein the first access point ~~comprises~~ contains the memory medium.

210. (currently amended) The method of claim 202, wherein the system identification information ~~comprises a~~ includes an Institute of Electronic Engineers (IEEE) standardized Media Access Control Identification (MAC ID) ~~media access control (MAC) ID~~.

211. (currently amended) The method of claim 202, wherein the system identification information comprises a digital certificate.

212. (currently amended) The method of claim 202, further comprising:

the first access point receiving second system identification information from a second portable computing device in a wireless manner;

the first access point determining a second VLAN tag corresponding to the second system identification information, wherein the second VLAN tag ~~corresponds to~~ is associated with a second network provider;

the first access point receiving second data from the second portable computing device in a wireless manner; and

the first access point providing the second VLAN tag and the second data received from the second portable computing device to the network, wherein the second VLAN tag is usable by the network to route the second data received from the second portable computing device based on the second network provider;

wherein the identification information is different from the second identification information; and

wherein the first network provider is different from the second network provider.

213. (currently amended) The method of claim 212,

wherein the second identification information comprises an Institute of Electronic Engineers (IEEE) standardized 802.11 ~~a~~ System Identification.

214. (currently amended) The method of claim 213,

wherein the System Identification comprises one or more of a wireless Ethernet Service Set Identification ~~ID~~ (SSID), an Extended Service Set Identification ~~ID~~ (ESSID), and a Basic Service Set Identification ~~ID~~ (BSSID).

215. (currently amended) The method of claim 202, further comprising:

determining a ~~quality of service~~ Quality of Service (QoS) metric as defined in the Institute of Electronic Engineers (IEEE) 802.1p transmission protocol based on the received system identification information;

wherein said providing the VLAN tag and the data received from the portable computing device to the network is based on the ~~quality of service~~ determined QoS metric.

216. (currently amended) The method of claim 202,

wherein the VLAN tag ~~comprises quality of service~~ is asssociated with a Quality of Service (QoS) metric as defined in the Institute of Electronic Engineers (IEEE) 802.1p transmission protocol ~~information, wherein the quality of service information indicates a quality of service~~; and

wherein the network is operable to route the data received from the portable computing device to a network destination based on the quality of service indicated by the ~~quality of service information~~ QoS metric.

217. (currently amended) The method of claim 202, further comprising:

transmitting a request for access to a remote host ~~a computer system~~ at for the network service provider[[,]] ~~destination~~ identified as a potential recipient of ~~receiving~~ the data from the portable computing device;

receiving, from the remote host, a response to the request for access; and

selectively ~~providing network access~~ forwarding the data to the portable computing device based on the response.

218. (currently amended) The method of claim 202, wherein the first access point is arranged at a known geographic location, the method further comprising:

the first access point providing geographic location information indicating a known geographic location of the portable computing device;

transmitting a request for access to a remote host for the network service provider identified as a potential recipient of the data from the portable computing device including the georgraphic location of the portable computing device;

receiving, from the remote host, a response to the request for access; and

selectively providing network access to the portable computing device[[;]] wherein said providing network access comprises selectively providing network access to the portable computing device based on the response. known geographic location of the portable computing device.

219. (currently amended) The method of claim 202, wherein the first access point is arranged at a known geographic location, the method further comprising:

the first access point providing geographic location information indicating a known geographic location of the portable computing device;

determining an access level for the portable computing device after receiving the system identification information;

transmitting a request for access to a remote host for the network service provider identified as a potential recipient of the data from the portable computing device including the geographic location of the portable computing device and the determined access level;

receiving, from the remote host, a response to the request for access; and

a computer system at a network destination receiving the data from the portable computing device;

providing network access to the portable computing device; and

determining an access level for the portable computing device after receiving the identification information;

wherein said providing network access comprises selectively providing network access to the portable computing device based on the response known geographic location of the portable computing device and the determined access level.

220. (previously presented) The method of claim 202, further comprising:

the first access point concurrently using a plurality of radio frequency (RF) channels for communicating with one or more portable computing devices.

221. (previously presented) The method of claim 220, wherein a first RF channel of the plurality of RF channels and a second RF channel of the plurality of RF channels are non-overlapping RF channels.

222-255. (cancelled).

256. (currently amended) A computer readable memory medium comprising program instructions for providing access to a network system, wherein the program instructions are executable by a wireless access point and are operable to:

receive system identification information from a portable computing device in a wireless manner, wherein the system identification information indicates includes an identifier for a first VLAN of a plurality of possible VLANs [[;]] and wherein each of at least two of the plurality of possible VLANs corresponds to a different respective network service provider from among a plurality of network service providers;

determine the a first VLAN identifier of the plurality of possible VLANs for the portable computing device after receiving the identification information, wherein the first VLAN corresponds to is associated with a first network service provider;

receive data from the portable computing device; and

providing provide the received data to the first network service provider a network using one or more attributes associated with the first VLAN.

257. (currently amended) The computer readable memory medium of claim 256,

wherein <u>an attribute associated with</u> the first VLAN corresponds to a first network destination;

wherein, in said providing, the program instructions are further ~~executable by the wireless access point to provide the received data to the first network destination using the first VLAN~~ <u>operable to forward the data to the first network destination</u>.

258. (currently amended) The computer readable memory medium of claim 256,

wherein each of ~~the~~ <u>a</u> plurality of possible VLANs corresponds to a respective network destination of a plurality of possible network destinations;

wherein the first VLAN corresponds to a first network destination;

wherein, in said providing, the program instructions are further executable by the wireless access point to provide the received data to the first network destination using <u>one or more attributes of</u> the first VLAN.

259. (previously presented) The computer readable memory medium of claim 258,

wherein the use of different VLANs for different network destinations operates to separate data traffic on the network for each of the network destinations.

260. (currently amended) The computer readable memory medium of claim 258,

wherein <u>each member of</u> ~~at least~~ a <u>non-empty</u> subset of the network destinations ~~comprise~~ <u>is associated with a respective</u> wireless service provider[[s]].

261. (currently amended) The computer readable memory medium of claim 258, wherein the program instructions are further ~~executable by the wireless access point~~ <u>operable</u> to:

receive second <u>system</u> identification information from a second portable computing device in a wireless manner, wherein the second <u>system</u> identification information indicates a second VLAN of the plurality of possible VLANs;

determine the second VLAN of the plurality of possible VLANs for the second

portable computing device ~~after receiving~~ from the second <u>system</u> identification

information;

receive data from the second portable computing device; and

provide the received data to the network using <u>one or more attributes of</u> the

second VLAN.

262. (currently amended) The computer readable memory medium of claim 256,

wherein the program instructions are further ~~executable by the wireless access point~~

<u>operable</u> to:

receive second <u>system</u> identification information from a second portable

computing device in a wireless manner~~, wherein the second identification information~~

~~indicates a second VLAN of the plurality of possible VLANs~~;

determine ~~the~~ <u>a</u> second VLAN of the plurality of possible VLANs ~~after receiving~~

<u>from</u> the second <u>system</u> identification information;

receive second data from the second portable computing device; and

provide the second received data to the network using <u>one or more attributes of</u>

the second VLAN.

263. (currently amended) The computer readable memory medium of claim 256,

wherein, in said determining the first VLAN of the plurality of possible VLANs, the

program instructions are further ~~executable by the wireless access point~~ <u>operable</u> to

access a memory medium coupled to the network and use the received <u>system</u>

identification information to determine ~~the~~ <u>a</u> first VLAN <u>identifier,</u> wherein the memory

medium ~~which~~ stores a data structure comprising a list of <u>entries of</u> <u>system</u>

identification information and<u>, for each entry,</u> a corresponding list of <u>one or more</u>

<u>respective attributes of the identified VLAN</u> ~~of the plurality of possible VLANs~~.

264. (currently amended) The computer readable memory medium of claim 263,

wherein, in said determining the first VLAN of the plurality of possible VLANs, the program instructions are further ~~executable by the wireless access point~~ operable to index into the data structure using the <u>system</u> identification information to determine <u>the one or more attributes of</u> the first VLAN ~~of the plurality of possible VLANs stored in the data structure corresponding to the identification information~~.

265. (currently amended) The computer readable memory medium of claim 263, wherein the memory medium is ~~comprised~~ <u>contained</u> in the first access point.

266. (currently amended) The computer readable memory medium of claim 263,

wherein the data structure further ~~comprises~~ <u>includes one or more</u> associated methods for providing data to the network; and

wherein, in said determining the first VLAN of the plurality of possible VLANs, the program instructions are ~~further executable by the wireless access point~~ <u>operable</u> to access the memory medium and use the received <u>system</u> identification information to determine the first VLAN and an associated method for providing data to the network.

267. (currently amended) The computer readable memory medium of claim 256,

wherein the identification information comprises <u>an Institute of Electronic Engineers (IEEE) standardized 802.11</u> ~~a~~ System Identification.

268. (currently amended) The computer readable memory medium of claim 267,

wherein the System Identification comprises one or more of a wireless Ethernet Service Set <u>Identification</u> ~~ID~~ (SSID), an Extended Service Set <u>Identification</u> ~~ID~~ (ESSID), and a Basic Service Set <u>Identification</u> ~~ID~~ (BSSID).

269. (currently amended) The computer readable memory medium of claim 268, wherein the BSSID ~~comprises a media access control (MAC) ID.~~ <u>includes an Institute of Electronic Engineers (IEEE) standardized Media Access Control Identification (MAC ID)</u>.

270. (currently amended) The computer readable memory medium of claim 256, wherein, in said providing the received data to the network using the first VLAN, the program instructions are further ~~executable by the wireless access point~~ operable to:

determine an access level for the portable computing device ~~after receiving the~~ from the received system identification information; and

selectively ~~wherein, in said providing the received data to the network using the first VLAN, the program instructions are further executable by the wireless access point to~~ provide the received data to the network using the first VLAN based on the determined access level.

271. (currently amended) The computer readable memory medium of claim 256, wherein the program instructions are further ~~executable by the wireless access point~~ operable to:

concurrently use a plurality of radio frequency (RF) channels for communicating with one or more portable computing devices.

272. (currently amended) The computer readable memory medium of claim 271, wherein a first RF channel of the plurality of RF channels and a second RF channel of the plurality of RF channels are non-overlapping RF channels.

273. (currently amended) The computer readable memory medium of claim 256, wherein the program instructions are further ~~executable by the wireless access point~~ operable to:

broadcast a plurality of possible System Identifications (SIDs), wherein each of the plurality of possible SIDs is associated with at least one VLAN of the plurality of possible VLANs.

274. (currently amended) The computer readable memory medium of claim 273,

wherein, in said broadcasting the plurality of possible SIDs, the program

instructions are further ~~executable by the wireless access point~~ operable to use a

beacon format.

275. (currently amended) The computer readable memory medium of claim 256,

wherein the wireless access point is arranged at a known geographic location[[;]] and

wherein the program instructions are further ~~executable by the wireless access point~~

operable to:

determine a geographic location of the portable computing device; and

selectively provide network access to the portable computing device using the

first VLAN ~~determined in said determining, wherein, in said providing network access,~~

~~the program instructions are further executable by the wireless access point to~~

~~selectively provide network access to the portable computing device~~ based on the

determined geographic location of the portable computing device.

276. (currently amended) The computer readable memory medium of claim 256,

wherein the wireless access point is arranged at a known geographic location[[;]] and

wherein the program instructions are further ~~executable by the wireless access point~~

operable to [[;]] selectively provide network access to the portable computing device

using the first VLAN ~~determined in said determining, wherein, in said providing network~~

~~access, the program instructions are further executable by the wireless access point to~~

~~selectively provide network access to the portable computing device~~ based on the

known geographic location of the wireless access point.

277. (currently amended) The computer readable memory medium of claim 256,

wherein the wireless access point is arranged at a known geographic location[[;]] and

wherein the program instructions are further ~~executable by the wireless access point~~

operable to

determine an access level for the portable computing device ~~after receiving~~ from the ~~received system~~ identification information; and

provide network access to the portable computing device using the first VLAN ~~determined in said determining, wherein, in said providing network access, the program instructions are further executable by the wireless access point to selectively provide network access to the portable computing device~~ based on the known geographic location of the ~~first~~ wireless access point and the determined access level.

278. (currently amended) The computer readable memory medium of claim 256, wherein the program instructions are further ~~executable by the wireless access point~~ operable to [[:]] assign a wireless communication channel for communication between the first access point and the portable computing device.

279. (currently amended) The computer readable memory medium of claim 278, wherein, in said assigning, the program instructions are further ~~executable by the wireless access point~~ operable to assign the wireless communication channel based on the system identification information received from the portable computing device.

280-285. (cancelled) .

286. (currently amended) A network system, comprising:

a plurality of wireless access points coupled to a network, wherein each of the plurality of wireless access points is operable to communicate with a portable computing device in a wireless fashion[[,]];

wherein each of the plurality of wireless access points is configured to receive system identification information from the portable computing device including an identifier for a ~~indicating a~~ VLAN ~~of~~ from among a plurality of possible VLANs;

wherein each of the plurality of access points is operable to determine the VLAN indicated by the system identification information;

wherein each of the plurality of wireless access points is operable to provide

network access to the portable computing device through the determined VLAN;

wherein the system identification information includes an Institute of Electronic

Engineers (IEEE) standardized 802.11 System Identification (SID) comprises a System

ID (SID) of a plurality of possible SIDs; and

wherein the first access point is operable to recognize the SID of the plurality of

possible SIDs, wherein each of the plurality of possible SIDs is associated with a

respective one of the plurality of possible VLANs;

wherein at least a subset of each of the plurality of possible SIDs comprises

includes one or more of an Institute of Electronic Engineers (IEEE) standardized 802.11

Service Set Identifier ID (SSID), an Extended Service Set Identifier ID (ESSID), and a

Basic Service Set Identifier ID (BSSID).

287.   (currently amended) A system[[,]] comprising:

a wireless access point operable to communicate with a portable computing

device in a wireless fashion, wherein the wireless access point is configured to receive

system identification information from the portable computing device including an

identifier for indicating a VLAN of a plurality of possible VLANs;

wherein the wireless access point is operable to determine the VLAN indicated by

the system identification information;

wherein the wireless access point is operable to provide network access to the

portable computing device through a service provider associated with the determined

VLAN;

wherein the system identification information includes an Institute of Electronic

Engineers (IEEE) standardized 802.11 System Identification (SID) parameter to

distinguish the SID comprises a System ID (SID) of from among a plurality of possible

SIDs; and

wherein the wireless access point is operable to recognize each SID of the

plurality of possible SIDs, wherein each of the plurality of possible SIDs is associated

identified with a respective one of the plurality of possible VLANs, a first and second

SID are associated with a respective first and second VLAN;

wherein each of at least two of the plurality of possible VLANs is associated with

a different respective service provider, wherein a first and second VLAN are associated

with a respective first and second service provider; and

wherein, for each of the at least two VLANs associated with a different respective

service provider and identified by an SID, the wireless access point is operable to

maintain an associations between the first and second SIDs and a respective plurality of

active subscribers of the first and second associated service providers associated with

the first and second VLANs associated with the first and second SIDs, respectively.

288. (currently amended) A network system, comprising:

a plurality of wireless access points coupled to a network, wherein each of the

plurality of wireless access points is operable to communicate with a portable

computing device in a wireless fashion, wherein each of the plurality of wireless access

points is configured to receive system identification information from the portable

computing device including an identifier for indicating a VLAN of a plurality of possible

VLANs;

wherein each of the plurality of access points is operable to determine the VLAN

indicated by the system identification information;

wherein each of the plurality of wireless access points is operable to provide

network access to the portable computing device through the determined VLAN;

wherein the plurality of access points are maintained by a first network service

provider; and

wherein the system identification information indicates a second network service

provider.

289. (currently amended) An apparatus providing a wireless access point, the apparatus

comprising:

a processor;

a memory medium coupled to the processor;

a port coupled to the processor, wherein the port is operable to be coupled to a network; and

a wireless transceiver coupled to the processor;

wherein the wireless transceiver is operable to receive <u>system</u> identification information from a portable computing device in a wireless manner, wherein the<u> system</u> identification information <u>includes an identifier for</u> <s>indicates</s> a first VLAN of a plurality of possible VLANs, <u>and</u> wherein each <u>member</u> of <s>at least</s> a <u>non-empty</u> subset of the plurality of possible VLANs corresponds to a respective network service provider;

wherein the memory medium <u>contains</u> <s>comprises</s> program instructions <s>which are</s> executable by the processor <u>and operable</u> to:

determine the <u>identifier for</u> <u>the</u> first VLAN of the plurality of possible VLANs for the portable computing device after receiving the identification information; and

provide data received from the portable computing device to a first network service provider, wherein the first network service provider <u>is associated with</u> <u>one or more attributes of</u> <s>corresponds to</s> the first VLAN.

290. (currently amended) The <u>apparatus</u> <s>wireless access point</s> of claim 289,

wherein <u>an attribute associated with</u> the first VLAN corresponds to a first network destination;

wherein said providing comprises <u>forwarding</u> <s>providing</s> the received data to the first network destination <s>using the first VLAN</s>.

291. (currently amended) The <u>apparatus</u> <s>wireless access point</s> of claim 289,

wherein each of the plurality of possible VLANs <u>has an attribute that</u> corresponds to a respective network destination of a plurality of possible network destinations;

wherein the first VLAN <u>is associated with</u> <s>corresponds to</s> a first network destination;

wherein said providing comprises <u>forwarding</u> ~~providing~~ the received data to the first network destination ~~using the first VLAN~~.

292. (currently amended) The <u>apparatus</u> ~~wireless access point~~ of claim 291,

wherein the use of different VLANs for different network destinations operates to separate data traffic on the network for each of the network destinations.

293. (currently amended) The <u>apparatus</u> ~~wireless access point~~ of claim 289,

wherein the first network service provider is a wireless service provider.

294. (currently amended) The <u>apparatus</u> ~~wireless access point~~ of claim 289,

wherein the wireless transceiver is operable to receive second <u>system</u> identification information from a second portable computing device in a wireless manner, wherein the second <u>system</u> identification information <u>includes an identifier for</u> ~~indicates~~ a second VLAN of the plurality of possible VLANs;

wherein the program instructions are executable by the processor <u>and operable to:</u>

determine the <u>identifier of the</u> second VLAN of the plurality of possible VLANs for the second portable computing device based on the second identification information; and

provide data received from the second portable computing device to a second network service provider, wherein the second network service provider <u>is associated with one or more attributes of</u> ~~corresponds to~~ the second VLAN.

295. (currently amended) The <u>apparatus</u> ~~wireless access point~~ of claim 289,

wherein the memory medium comprises a data structure comprising a list of <u>system</u> identification ~~information~~ entries and<u>, for each entry in the list, one or more attributes of</u> a corresponding ~~list of the plurality of possible~~ VLAN[[s]]; and

wherein, in determining the first VLAN of the plurality of possible VLANs, the program instructions are executable to access the data structure and use the received system identification information to determine <u>one or more attributes of</u> the first VLAN.

296. (currently amended) The <u>apparatus</u> ~~wireless access point~~ of claim 295,

wherein the data structure further comprises associated methods for providing data to the network; and

wherein the program instructions are executable to use the received <u>system</u> identification information to determine the first VLAN and an associated method for providing data to the network.

297. (currently amended) The <u>apparatus</u> ~~wireless access point~~ of claim 289, wherein the identification information <u>includes</u> <u>an Institute of Electronic Engineers (IEEE)</u> <u>standardized 802.11 System Identification (SID)</u> ~~comprises a System Identification~~.

298. (currently amended) The <u>apparatus</u> ~~wireless access point~~ of claim 289, wherein the program instructions are further executable to:

determine an access level for the portable computing device after receiving the identification information; and

<u>selectively</u> provide the received data to the first network service provider based on the determined access level.

299. (currently amended) The <u>apparatus</u> ~~wireless access point~~ of claim 289, wherein the wireless access point concurrently uses a plurality of radio frequency (RF) channels for communicating with a plurality of portable computing devices.

300. (currently amended) The apparatus ~~wireless access point~~ of claim 289, wherein the wireless access point is operable to broadcast a plurality of possible System Identifications (SIDs), and wherein each of the plurality of possible SIDs is associated with at least one VLAN of the plurality of possible VLANs.

301. (currently amended) The apparatus ~~wireless access point~~ of claim 289,

wherein the wireless access point is arranged at a known geographic location;

wherein the wireless access point is operable to selectively provide network access to the portable computing device based on the known geographic location of the wireless access point.

302. (currently amended) The apparatus ~~wireless access point~~ of claim 289,

wherein the wireless access point is operable to selectively provide network access to the portable computing device based on a determined geographic location of the portable computing device.